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*Land off Atlantic Way, Brunswick Dock, Liverpool*

# Wintering Bird Survey Report

**Compiled by Ecology Services Ltd.**

Members of the Institute of Ecology and Environmental Management.

*on behalf of*

Maro Development Limited

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Environmental Consultants

1 Church Row Chambers  
**Longton**  
Preston  
**Lancashire PR4 5PN.**

**tel:** 01772 614932  
**fax:** 01772 614930  
**email:** [info@ecologyservices.co.uk](mailto:info@ecologyservices.co.uk)  
**web:** [www.ecologyservices.co.uk](http://www.ecologyservices.co.uk)

**Written by:** AL  
**Checked:** SB  
**Approved:** SB

<b>1.0</b>	<b>INTRODUCTION</b>	<b>2</b>
<b>2.0</b>	<b>METHODOLOGY</b>	<b>3</b>
<b>3.0</b>	<b>RESULTS</b>	<b>3</b>
<b>4.0</b>	<b>EVALUATION</b>	<b>5</b>
<b>5.0</b>	<b>CONCLUSIONS &amp; RECOMMENDATIONS</b>	<b>6</b>
<b>6.0</b>	<b>REFERENCES</b>	<b>7</b>

## **TABLES AND FIGURES**

**Table 1:** Ecological Desktop Study Data Sources and References

**Table 2:** Survey timings and weather conditions

**Table 3:** Natura 2000 sites within 10km

**Table 4:** Conservation statuses of recorded bird species

**Table 5:** Target bird species counts within survey area

**Table 6:** Other notable bird counts within survey area

## **DRAWINGS**

**Drawing 1:** Site Location and Survey Area Plan

**Drawing 2:** Site Proposals Plan (Fletcher Rae, 2016)

**Drawing 3.1:** Bird Survey Results Summary Plan (1 of 2)

**Drawing 3.2:** Bird Survey Results Summary Plan (2 of 2)

## **1.0 INTRODUCTION**

- 1.1 Ecology Services Limited was commissioned by Maro Development Limited in January 2018, to undertake a Wintering Bird Survey (WBS) at Brunswick Dock, Liverpool with regard to the proposed development of approximately 1.17ha of land off Atlantic Way, hereinafter referred to as 'the site'. The centre of the site is located by national grid reference (NGR) 334710, 388191.

### ***Site description***

- 1.2 The site comprises brownfield land of former industrial use situated adjacent to Brunswick Dock off Atlantic Way, Liverpool. The land is currently dominated by hardstanding and gravel/ bare ground with scattered shrubs, and at the time of survey was used as temporary car storage.
- 1.3 The site is bordered to the south by Atlantic Way with commercial offices beyond; to the north and east by Brunswick Dock; to the west by the estuary-side path and Mersey River estuary; and to the north-west by the lock into Brunswick Dock and residential flats beyond.
- 1.4 The location of the site is shown on *Drawing 1*.

### ***Development proposals***

- 1.5 The site is proposed for redevelopment including construction of 4 blocks of apartments (totalling 550 units), ground floor car parking and commercial units, and associated infrastructure, formal landscaping and public open space. The proposals are shown on the plans provided as *Drawing 2*.

### ***Context and scope of survey***

- 1.6 The site is located within close proximity to a number of nature conservation sites designated for their ornithological interest including Liverpool Bay Special Protected Area (SPA), Mersey Estuary SPA and Ramsar, Mersey Narrows and North Wirral Foreshore SPA and Ramsar, and New Ferry Site of Special Scientific Interest (SSSI). Further information on these designations are provided in the desk study results section (*Section 3*).
- 1.7 The winter bird survey has been carried out to assess the importance of the site for wintering birds in order to provide sufficient information to allow an assessment to be made of any potential adverse effects of the proposed development on nearby nature conservation sites and the wintering birds for which they are designated.
- 1.8 The scope and methodology of the survey were developed through consultation with Merseyside Environmental Advisory Service (MEAS). Potential impacts on wintering birds which would need to be considered during any further assessment of the proposed development include adverse effects of additional noise and visual disturbance, artificial lighting, increased recreational pressure and transfer of construction-related pollutants.
- 1.9 Where appropriate, recommendations for any impact avoidance and mitigation measures with regards to wintering birds have been outlined in this report.

### ***Legislation***

- 1.10 The Habitat Regulations Directive (92/43/EEC) established a network of Natura 2000 sites, within the European Community, with the objective of protecting sites that are considered to be of exceptional importance to rare, containing endangered and vulnerable natural

habitats and species. These sites are European designated sites and are known as Special Areas of Conservation (SAC), Special Protection Areas (SPA's) and Offshore Marine Sites (OMS). Planning Policy also recommend that RAMSAR sites should be afforded the same level of consideration as the Natura 2000 sites.

- 1.11 To ensure that the protection of these sites is considered during the planning process at a regional and local level, works in close proximity of, or that have the potential to affect a European designated site, require an Assessment of Likely Significant Effect (ALSE).
- 1.12 Where a development is likely to have a significant effect upon a European designated site, an Appropriate Assessment (AA) of the implications of the works upon a European site, in view of the sites conservation objectives, will be required. The Planning Authority will require either the ALSE or the AA in support of any planning application and Natural England will need to be consulted as part of this process to obtain the correct assents when required.
- 1.13 The Habitat Regulations Directive (92/43/EEC) transposed into UK law in 1994 as The Habitats Regulations, which was subsequently amended and is now known as the Conservation of Habitats and Species Regulations 2010.

## 2.0 METHODOLOGY

### ***Ecological Desktop Study***

- 2.1 Ecological data was collated from the following sources; listed in *Table 1* below.

**Table 1: Ecological Desktop Study Data Sources and References**

Source of information	Information supplied
Multi Agency Geographical Information Centre ( <a href="http://www.magic.gov.uk">www.magic.gov.uk</a> )	To identify statutory nature conservation sites (Natura 2000 sites, Sites of Special Scientific Interest, National Nature Reserves and Local Nature Reserves), non-statutory protected sites (ancient woodland), UK Habitats of Principal Importance and other features of interest within 10km of the site.
Natural Environment and Rural Communities (NERC) Act 2006	Review of UK Habitats/ Species of Principal Importance known to occur in the region.
Local Biodiversity Action Plan	Identification of Local BAP Species and Habitats which are considered to be of particular priority for conservation in the region.
Birds of Conservation Concern 4: The Red List for Birds (RSPB, 2015)	Identification of notable, rare and/ or declining bird species listed on the amber and red lists for the UK.
Merseyside Biobank ( <a href="http://www.activenaturalist.org.uk/mbb/">http://www.activenaturalist.org.uk/mbb/</a> )	Identification of non-statutory nature conservation sites including Local Wildlife Sites.
TEP (2015) <i>Assessment of Supporting Habitat (Docks) for Use by Qualifying Features of Natura 2000 Sites in the Liverpool City Region</i> . TEP, Warrington.	Data from a year-long study on the use of the Liverpool dock system by bird species associated with nearby Natura 2000 sites. Included survey coverage of Brunswick Dock adjacent to the site.

### ***Wintering bird survey***

- 2.2 A survey methodology was devised to assess the usage of areas of Brunswick Dock and the River Mersey estuary adjacent to the site by wintering birds, in particular those associated with nearby designated sites. To achieve this, three Vantage Points (VPs) were

chosen (see *Drawing 1*) from which each surveyor was able to clearly view these habitats and record the presence of birds associated with the designated sites. Records were made of birds seen within an area of approximately 500m from the site, hereinafter referred to as the 'survey area'.

- 2.3 A survey was carried out over a total of six survey visits including a visit at high and low tides between January and March 2018. During each visit all three vantage points were surveyed simultaneously for a minimum of two hours. Survey visits were carried out during the daytime, avoiding the period within one hour after dawn. The visits included the time of the highest or lowest tide and up to two hours either side.
- 2.4 Details of the weather during the survey, including temperature, rainfall, wind force and direction, cloud cover and visibility was recorded at the beginning, middle and end (every hour) of the survey. The survey visits were generally carried out in favourable weather conditions with no rain, low-moderate wind and good visibility. The timings and weather conditions during each survey visit are shown in *Table 2* below:

**Table 2: Survey timings and weather conditions**

Date	Survey time	Tide time (High / Low)	Temp. (°C)	Wind (Beaufort / direction)	Rain	Cloud (%)	Visibility
19/01/2018	10:45 – 13:45	12:37 (High)	4 - 5	4 – 5 (W)	Very light 1:15 – 1:20	50 - 80	Clear
26/01/2018	11:05 – 13:05	12:07 (Low)	6 - 8	1 – 2 (NW)	None	0	Clear
09/02/2018	12:05 – 14:05	12:15 (Low)	5	3 – 4 (NW)	None	60 - 20	Clear
15/02/2018	10:55 – 13:00	11:03 (High)	7 - 8	5 – 6 (WNW)	None	40 - 10	Clear
09/03/2018	10:15 – 12:15	10:24 (Low)	6 - 7	1 – 3 (SE)	None	20 - 80	Clear
21/03/2018	12:45 – 14:45	13:29 (High)	8	3 (W)	None	80 - 100	Clear

- 2.5 The methodology for recording birds during the survey followed a similar approach to that taken by TEP (TEP, 2015). This involved recording all activity for target bird species, which includes all qualifying species/ species groups associated with nearby designated nature conservation sites, specifically:
- Waders;
  - Wildfowl (except for non-native species e.g. Canada goose);
  - Herons/egrets;
  - Divers;
  - Cormorant; and
  - Little gull
- 2.6 For all target species information on their use of the site included recording species, numbers, the times they were present within the survey area, location, paths of flight/ swimming and direction, and altitude (if in flight). The altitude was estimated within bands of 0-10m, 10-50m or >50m, marking multiple bands where more than one was used.

2.7 All other bird species, including other gulls, were also recorded during the survey, however numbers were often tallied or maximum counts noted along with a summary of their general activity. Particular consideration was given to recording of other seabirds (gulls) and waterbirds, and other notable species including birds listed on:

- Annex 1 of the Birds Directive
- Schedule 1 of the Wildlife and Countryside Act
- Red or Amber lists of Birds of Conservation Concern (RSPB, 2015)
- NERC Section 41 (S41) as UK Species of Principal Importance
- List of North Merseyside BAP (LBAP) priority species

2.8 Any other relevant information such as disturbance events, such as birds being flushed from roosts by walkers, movement by motor boats, or likewise if birds were not disturbed where it would have been expected, were also noted.

#### *Personnel and equipment*

2.9 All six survey visits were carried out by Senior Consultant Ecologist Simon Booth, Consultant Ecologist Alex Leishman and Consultant Ecologist Craig Smith of Ecology Services Ltd, all of which are experienced bird surveyors. Each surveyor was equipped with 8-10x binoculars and x60 spotting scopes. Individual surveyors were able to communicate with each other via mobile phones and/or walkie-talkies throughout each survey.

#### *Limitations of Survey*

2.10 Although it is advised for a WeBS Core Count survey to carry out visits each month between September and March inclusive, due to late commissioning of the wintering bird survey work, the survey began in January and included 6 survey visits. Although visits at the beginning of the winter season were not carried out, the survey did include visits during the core period of January and included both high and low tide counts during each month. In view of the objectives of the survey, the artificial nature of the habitats within and surrounding the site and the common and widespread species recorded during the surveys, it is considered that the scope of the survey undertaken is sufficient to inform an assessment of the likely impact of the proposals on nearby designated sites and associated bird species.

### **3.0 DESK STUDY**

#### ***Statutory designated sites***

3.1 The site is situated adjacent to the River Mersey estuary and lies within 10km of four Natura 2000 sites designated on the basis of their ornithological interest. These sites are listed below in *Table 3* with a summary of the features for which they are designated:

**Table 3: Natura 2000 sites within 10km**

Site name	Distance from site	Reason for designation
Liverpool Bay Special Protection Area (SPA) and RAMSAR	10-20m west	<p>Used regularly by 1% or more of the biogeographical population of:</p> <ul style="list-style-type: none"> <li>• Common scoter <i>Melanitta nigra</i> (10.31% of the North-western European non-breeding population).</li> </ul> <p>Used regularly by 1% or more of the Great British population of:</p> <ul style="list-style-type: none"> <li>• Red-throated diver <i>Gavia stellate</i> (6.89% of the non-breeding population).</li> <li>• Little gull <i>Hydrocoloeus minutus</i> (319 individuals non-breeding).</li> <li>• Little tern <i>Sternula albifrons</i> (6.84% of the breeding population).</li> <li>• Common tern <i>Sterna hirundo</i> (1.8% of the breeding population).</li> </ul> <p>Regularly supports an assemblage of at least 20,000 waterfowl:</p> <ul style="list-style-type: none"> <li>• Regularly supports at least 69,687 individual waterbirds.</li> <li>• Assemblage also includes over 1% of the Great British populations of red-breasted merganser <i>Mergus serrator</i> and great cormorant <i>Phalacrocorax carbo</i>.</li> </ul>
Mersey Estuary SPA and RAMSAR	1.5km south-west; 2.2km south-east	<p>Used regularly by 1% or more of the biogeographical population of:</p> <ul style="list-style-type: none"> <li>• Redshank <i>Tringa tetanus</i> (3.5% of the <i>britannica</i> passage population)</li> <li>• Shelduck <i>Tadorna tadorna</i> (in winter 2.2% of the North-western Europe wintering population).</li> <li>• Teal <i>Anas cracca</i> (in winter 2.9% of the North-western Europe wintering population).</li> <li>• Pintail <i>Anas acuta</i> (in winter 1.9% of the North-western Europe wintering population).</li> <li>• Dunlin <i>Calidris alpina</i> (in winter 3.7% of the <i>alpina</i> (Western Europe) wintering population).</li> <li>• Black-tailed godwit <i>Limosa limosa</i> (2.8% of the <i>islandica</i> wintering population).</li> <li>• Redshank <i>Tringa tetanus</i> (3.8% of the <i>britannica</i> wintering population).</li> </ul> <p>Used regularly by 1% or more of the Great British population of:</p> <ul style="list-style-type: none"> <li>• Golden plover <i>Pluvialis apricaria</i> (1.2% of the Great British wintering population).</li> </ul> <p>Regularly supports an assemblage of at least 20,000 waterfowl:</p> <ul style="list-style-type: none"> <li>• Regularly supports at least 104,599 individual waterbirds in the non-breeding season.</li> </ul>
Mersey Narrows and North Wirral Foreshore SPA and RAMSAR	2.9km north-west	<p>Used regularly by 1% or more of the biogeographical population of:</p> <ul style="list-style-type: none"> <li>• Knot <i>Calidris canutus islandica</i> (2.4% of Western Europe/ Waddensea/ Britain/ Ireland non-breeding population).</li> </ul> <p>Used regularly by 1% or more of the Great British population of:</p> <ul style="list-style-type: none"> <li>• Bar-tailed godwit <i>Limosa lapponica</i> (6.6% of the wintering population).</li> <li>• Common tern <i>Sterna hirundo</i> (1.8% of the breeding population).</li> <li>• Little gull <i>Hydrocoloeus minutus</i> (213 non-breeding).</li> <li>• Common tern <i>Sterna hirundo</i> (1,475 non-breeding).</li> </ul> <p>Regularly supports an assemblage of at least 20,000 waterfowl:</p> <ul style="list-style-type: none"> <li>• Regularly supports at least 32,366 individual waterbirds in the non-breeding season.</li> </ul>

Site name	Distance from site	Reason for designation
Ribble and Alt Estuaries SPA and RAMSAR	9.0km north	<p>Used regularly by 1% or more of the biogeographical population of breeding lesser black-backed gull <i>Larus fuscus</i>; on passage ringed plover <i>Charadrius hiaticula</i> and sanderling <i>Calidris alba</i>; and wintering black-tailed godwit, dunlin, grey plover <i>Pluvialis squatarola</i>, knot, oystercatcher <i>Haematopus ostralegus</i>, pink-footed goose <i>Anser brachyrhynchus</i>, pintail, redshank, sanderling, shelduck, teal and wigeon <i>Anas Penelope</i>.</p> <p>Used regularly by 1% or more of the Great British population of breeding common tern and ruff <i>Philomachus pugnax</i>; and wintering bar-tailed godwit, Bewick's swan <i>Cygnus columbianus bewickii</i>, golden plover and whooper swan <i>Cygnus cygnus</i>.</p> <p>Regularly supports an assemblage of at least 20,000 waterfowl:</p> <ul style="list-style-type: none"> <li>• Regularly supports at least 29,236 individual seabirds in the breeding season.</li> <li>• Regularly supports at least 301,449 individual wintering waterbirds.</li> </ul>

3.2 Three sites of national importance for nature conservation designated are located within 5km of the site, specifically:

- New Ferry Site of Special Scientific Interest (SSSI), which is located approximately 1.5km south-west of the site and forms part of Mersey Estuary SPA and RAMSAR (see above). New Ferry SSSI is designated primarily for its wintering populations of pintail *Anas acuta* and black-tailed godwit *Limosa limosa*.
- Mersey Estuary SSSI, which is located approximately 1.9km south-east of the site, a section of which is also designated as Mersey Estuary SPA and RAMSAR (see above). This SSSI is designated primarily for its intertidal sand and mudflats which are of high importance for wintering wildfowl and waders.
- Mersey Narrows SSSI which is located approximately 2.9km north-west of the site and forms part of Mersey Narrows and North Wirral Foreshore SPA and RAMSAR (see above). Mersey Narrow SSSI is designated primarily for its intertidal sand and mudflats, which support internationally important populations of turnstone *Arenaria interpres* (pre-July 2013), redshank *Tringa tetanus* and nationally important populations of cormorant *Phalacrocorax carbo*.

#### **Non-statutory designated sites**

3.3 The only non-statutory Local Wildlife Site (LWS) within 2km of the site is Mersey Estuary/ Mersey Way LWS, which is located approximately 1.9km south-east of the site and forms part of Mersey Estuary SPA/ RAMSAR/ SSSI.

## **4.0 SURVEY RESULTS**

4.1 During the wintering bird survey, a total of 20 species, were recorded including 5 target species. A list of all bird species recorded during the survey and their individual conservation statuses is provided in *Table 4* below.

**Table 4: Conservation statuses of recorded bird species**

Common Name	Scientific Name	BDA 1 <sup>1</sup>	WCA 1 <sup>2</sup>	NERC 41 <sup>3</sup>	LBAP <sup>4</sup>	BOCC4 <sup>5</sup>
Canada goose	<i>Branta canadensis</i>					N/A
<b>Mallard</b>	<i>Anas platyrhynchos</i>					Amber
<b>Cormorant</b>	<i>Phalacrocorax carbo</i>					Green
Sparrowhawk	<i>Accipiter nisus</i>					Green
Moorhen	<i>Gallinula chloropus</i>					Green



Common Name	Scientific Name	BDA 1 <sup>1</sup>	WCA 1 <sup>2</sup>	NERC 41 <sup>3</sup>	LBAP <sup>4</sup>	BOCC4 <sup>5</sup>
<b>Turnstone</b>	<i>Arenaria interpres</i>					Amber
<b>Redshank</b>	<i>Tringa totanus</i>					Amber
<b>Black-headed gull</b>	<i>Chroicocephalus ridibundus</i>					Amber
<b>Little gull</b>	<i>Larus minutus</i>	✓	✓			Green
<b>Common gull</b>	<i>Larus canus</i>					Amber
<b>Lesser black-backed gull</b>	<i>Larus fuscus</i>					Amber
<b>Herring gull</b>	<i>Larus argentatus</i>			✓		Red
<b>Great black-backed gull</b>	<i>Larus marinus</i>					Amber
<b>Kestrel</b>	<i>Falco tinnunculus</i>					Amber
Magpie	<i>Pica pica</i>					Green
<b>Peregrine falcon</b>	<i>Falco peregrinus</i>	✓	✓			Green
Carion crow	<i>Corvus corone</i>					Green
Blue Tit	<i>Parus caeruleus</i>					Green
<b>Starling</b>	<i>Sturnus vulgaris</i>			✓	✓	Red
Greenfinch	<i>Carduelis chloris</i>					Green

\*All notable bird species are in **BOLD** and those in **GREEN** indicate target bird species. <sup>1</sup>Bird Directive Annex 1. <sup>2</sup>Wildlife and Countryside Act Schedule 1. <sup>3</sup>2006 NERC Act Species of Principal Importance. <sup>4</sup>North Merseyside BAP Priority Species. <sup>5</sup>Birds of Conservation Concern (RSPB, 2015).

### Target bird species

- 4.2 A summary of target bird species recordings during the wintering bird survey is provided in Table 5 below. Numbers, locations and movements of target birds during each of the survey visits are shown on Drawings 3.1 (cormorant) and 3.2 (mallard, turnstone, redshank and little gull).

**Table 5: Target bird species counts within survey area**

		Total birds counted during each survey visit*					
		January 2018		February 2018		March 2018	
Common Name	Scientific Name	HT (1)	LT (2)	LT (3)	HT (4)	LT (5)	HT (6)
Mallard	<i>Anas platyrhynchos</i>	3	2	0	0	2	4
Cormorant	<i>Phalacrocorax carbo</i>	16 [15]	18 [16]	15 [13]	15 [9]	11 [7]	4 [4]
Turnstone	<i>Arenaria interpres</i>	7	5	0	4	2	7 [5]
Redshank	<i>Tringa tetanus</i>	0	3	0	0	4	0
Little gull	<i>Larus minutus</i>	1	0	0	0	0	0

\*Numbers in brackets [ ] give an estimate of maximum numbers of individuals considered likely to have been using or flying over the survey area where this differs from the total number of birds counted over the visit. This considers repeat counts where the same bird is likely to have been recorded by more than surveyor.

### Mallard

- 4.3 Mallard was recorded on a total of 8 separate occasions during the wintering bird survey with up to 4 recorded during any one visit. The vast majority of these records relate to an individual or pairs of mallard dabbling or roosting within the dock and flying in/ out of the dock from/ to the north.

### Cormorant

- 4.4 Cormorant was recorded on a total of 42 occasions during the wintering bird survey. A maximum of 18 records were made in total during any visit, and it is expected that up to 16 individuals could have been recorded during any visit although it is possible that a

significant proportion of birds were repeat visitors to the survey area. A maximum of 6 individuals were recorded at any one time.

- 4.5 The majority of cormorant activity recorded related to individuals and small groups foraging and roosting within the dock and flying in/ out of the dock from/ to the north. A small number of individuals was also recorded flying along the estuary and one was recorded flying over the site into the dock.

#### *Turnstone*

- 4.6 Turnstone was recorded on a total of 7 occasions during the wintering bird survey with up to 7 recorded during any one visit. During the high tide visits, a group of turnstone was often recorded roosting or foraging alongside the promenade footpath on the edge of the estuary. During the low tide visits individuals or small groups of turnstone were regularly recorded foraging on exposed sand/ mud at the edge of the estuary or roosting on exposed derelict jetties which are otherwise submerged at high tide.
- 4.7 Turnstone roosting and foraging along the promenade were observed to be particularly tame and were unbothered by passing walkers and cyclists even when dogs were present. The birds would only move if closely approached and would only rarely take flight to move to a different position along the promenade if startled.

#### *Redshank*

- 4.8 Redshank was recorded on a total of 4 occasions during the wintering bird survey with up to 4 recorded during any one visit. Redshank was only recorded during 2 low tide visits when individuals were recorded foraging on exposed sand/ mud at the edge of the estuary.

#### *Little gull*

- 4.9 An individual little gull was recorded on one occasion during the first survey visit at high tide. This bird was slowly drifting on the water along the edge of the estuary and it is possible that it was blown up the estuary by the strong winds that day.

#### **Other notable bird species**

- 4.10 A summary of numbers of all other notable bird species recorded during the wintering bird survey is provided in *Table 6*. As not all individual gulls were recorded and each surveyor was likely to have observed repeat visits by the same birds during each visit, the majority of the figures in the table below provide a rough estimate of the maximum number of individuals likely to have been using or flying over the survey area.

**Table 6: Other notable bird counts within survey area**

		Total birds counted during each survey visit*					
		January 2018		February 2018		March 2018	
Common Name	Scientific Name	HT (1)	LT (2)	LT (3)	HT (4)	LT (5)	HT (6)
Black-headed gull	<i>Chroicocephalus ridibundus</i>	- [47]	- [53]	- [56]	- [52]	- [45]	- [38]
Common gull	<i>Larus canus</i>	- [8]	- [1]	- [4]	- [4]	- [1]	- [8]
Lesser black-backed gull	<i>Larus fuscus</i>	- [5]	- [1]	- [1]	0	- [5]	- [19]
Herring gull	<i>Larus argentatus</i>	- [34]	- [66]	- [48]	- [39]	- [74]	- [54]
Great black-backed gull	<i>Larus marinus</i>	- [3]	- [2]	- [3]	0	2	- [3]
Kestrel	<i>Falco tinnunculus</i>	0	0	0	0	0	1
Peregrine falcon	<i>Falco peregrinus</i>	0	0	1	0	0	0
Starling	<i>Sturnus vulgaris</i>	0	1	0	0	0	10

\*Numbers in brackets [ ] give an estimate of maximum numbers of individuals considered likely to have been using or flying over the survey area where this differs from the total number of birds counted over the visit. This considers repeat counts where the same bird is likely to have been recorded by more than surveyor.

### *Gulls*

- 4.11 In addition to little gull, five other gull species were recorded during the surveys; black-headed gull, common gull, lesser black-backed gull, herring gull and great black-backed gull. Black-headed gull and herring gull were recorded in greatest numbers with individuals and small groups regularly recorded flying over the site and survey area, with occasional congregations of larger flocks of these two species where foraging. Black-headed gull was recorded in low numbers during most surveys visits, often flying along the estuary edge and around the docks. Low numbers of lesser black-backed gull were frequently recorded perching on buildings to the west of Brunswick Dock. Common gull was frequently recorded in low numbers, often flying around the docks, roosting and foraging within the docks and along the edge of the estuary at low tide.
- 4.12 Other notable species recorded included kestrel and peregrine falcon which were each recorded flying over the survey area on one occasion. Starlings were recorded on two occasions, usually in association with residential development bordering the dock.

## **5.0 EVALUATION**

- 5.1 The wintering bird survey recorded five target species. Of these, little gull and redshank are individual species which are qualifying features for nearby SPAs in their own right. Cormorant is listed as a species forming part of qualifying wintering bird assemblages.
- 5.2 Little gull is listed as a qualifying feature for Liverpool Bay SPA, and Mersey Narrows and North Wirral Foreshore SPA, which support 319 and 213 non-breeding individuals respectively. A single little gull was recorded during the first survey visit drifting down the estuary in high winds. No other little gull records were made during the survey. The results of the survey therefore suggest that areas of Brunswick Dock and Liverpool Bay SPA within the survey area are not of significant importance for wintering little gull populations associated with the SPAs.
- 5.3 Redshank is listed as a qualifying feature for the Mersey Estuary SPA, which supports 3.8% (4993 individuals) of the biogeographical non-breeding population. Up to 4 redshank were recorded foraging on sand/ mudflats on the margins of the estuary near to the site during each of two survey visits at low tide, which represents less than 0.1% of the population of Mersey Estuary SPA. It is considered that the margins of the estuary within the survey area provide supportive habitat for roosting and foraging redshank, albeit in very low numbers and at low tide only.
- 5.4 Cormorant forms part of the qualifying wintering waterbird assemblage for the Liverpool Bay SPA, averaging 860 non-breeding individuals (Lawson et al., 2016), and Mersey Narrows and North Wirral Foreshore SPA. An estimated maximum of 16 individuals using the survey area were recorded during each survey visit, which represents 1.86% of the population of Liverpool Bay SPA. Up to 6 cormorant were regularly recorded using areas of Brunswick Dock adjacent to the site. It is therefore considered that the docks provide supportive habitat for low numbers of wintering cormorant associated with Liverpool Bay SPA.
- 5.5 Up to seven turnstone were recorded during any one survey visit, foraging or roosting along the estuary promenade at high tide and on sand/ mud-flats at the margins of the estuary at low tide. Mersey Narrow SSSI was previously designated in part for its internationally

population of wintering turnstone. Due to a rapid population decrease however, turnstone is no longer a qualifying feature of the Mersey Narrows and North Wirral Foreshore SPA in its own right and does not contribute to qualifying waterbird assemblages as populations are no longer thought to exceed 1% of the Great British population.

- 5.6 Numbers of other gull species recorded during the survey, which include species on the Red (herring gull) and Amber (great black-backed gull, black-headed gull, common gull and lesser black-backed gull), represent very low percentages of the Great British populations of this species and it is not considered that the site and wider survey area comprise an important area of habitat for these species.
- 5.7 Peregrine falcon, which is listed on Annex 1 of the Birds Directive and on Schedule 1 of the Wildlife and Countryside Act 1981, was recorded on one occasion flying over in the north of the survey area and was not recorded using areas within 500m of the site. Similarly, the site and its surrounds are not considered important for Kestrel, which is an Amber listed species on the list of birds of conservation concern (BoCC, 2015). Only small number of Mallard, an Amber listed species and Starling, a Red listed species on the BoCC, were recorded using the survey area.

## **6.0 CONCLUSIONS AND RECOMMENDATIONS**

- 6.1 No target bird species or other notable bird species were recorded using the site itself during the wintering bird survey. Three bird species associated with nearby SPAs were recorded using habitats in the wider survey area; little gull, redshank and cormorant.
- 6.2 In view of the low numbers of individuals species recorded within the survey area, it is considered that habitats within the survey area do not comprise an important area of supportive habitat for these bird species. Furthermore, for this reason it is not considered that the proposed development would result in significant negative effects on these species or other bird species associated with the Liverpool Bay SPA or other SPAs in the surrounding area, and therefore no further assessment of likely significant effects is deemed to be required in support of the planning application.
- 6.3 Notwithstanding the above, it is recommended that precautionary measures are implemented to protect estuarine and dockland habitats and maintain opportunities for birds associated with nearby SPAs during the construction and operational phases of the development proposed at the site.
- 6.4 Avoidance and mitigation measures to minimise the potential for impacts of development on the Liverpool Bay SPA and associated habitats should include:
- All works should be carried out in accordance with relevant Environment Agency pollution prevention guidance, to minimise the likelihood of construction related pollutants entering the dock or estuary;
  - Appropriate measures to reduce noise from construction activities to minimise potential disturbance to birds and other wildlife using areas surrounding the site;
  - A sensitive lighting scheme should be designed to minimise additional light spill into habitats surrounding the site during both the construction and operational phases of the proposed development.
- 6.5 It is recommended that the above measures are reviewed by an appropriately qualified ecologist at an appropriate stage prior to works commencing.

## 7.0 REFERENCES

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**Drawing 1:**  
Site Location and Survey Area Plan








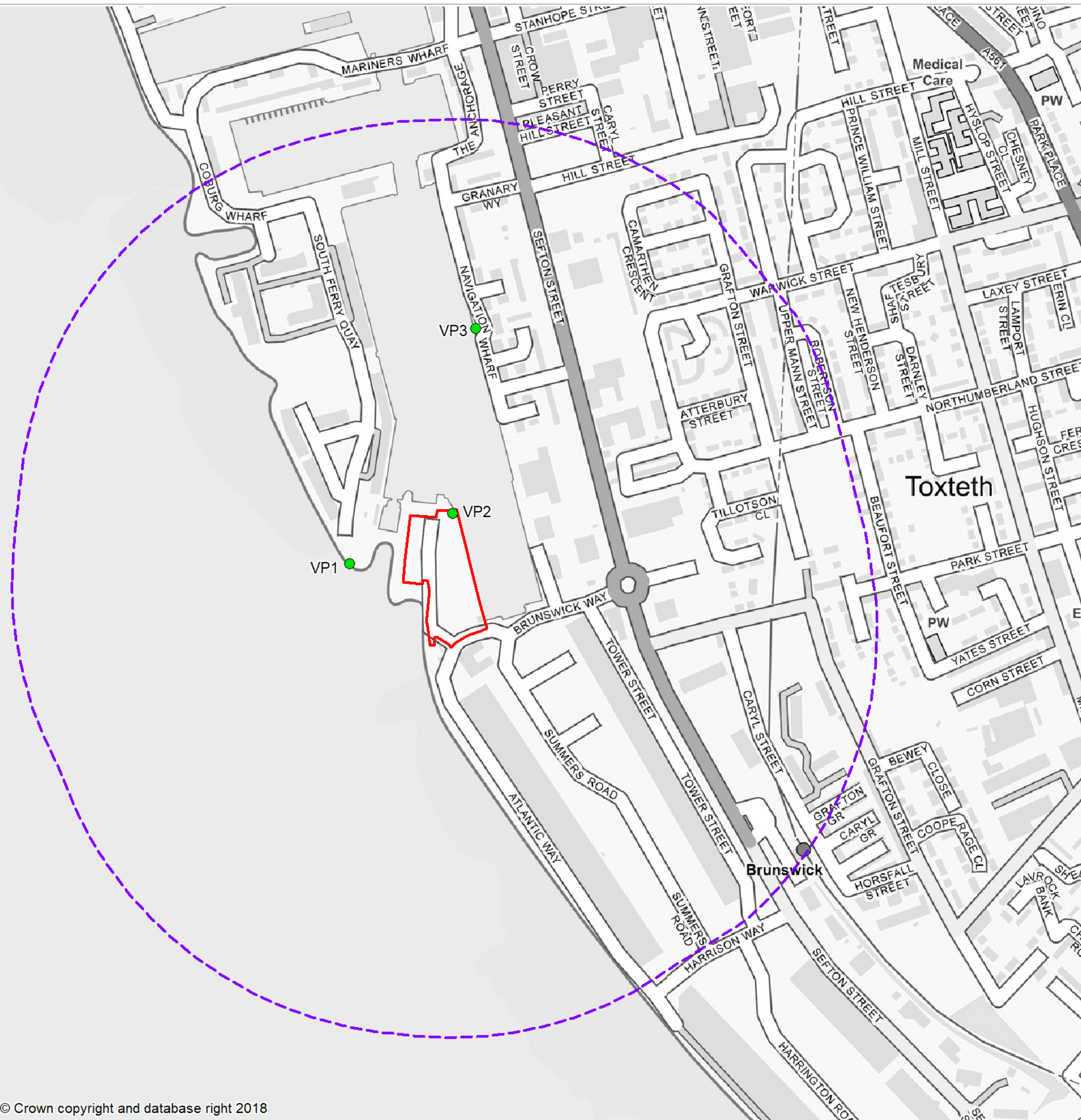
Land off Atlantic Way, Brunswick Dock,  
Liverpool

## Drawing 1: Site and Survey Area Location Plan

Map Ref: (NGR) 334710, 388191  
Map Scale: 1:5000 @ A3

### Key

-  Site boundary
-  Survey area (500m site boundary buffer)
-  Vantage points



**Drawing 2:**  
Site Proposals Plan (Fletcher Rae, 2016)



## 1.1 The Site\_Aerial View facing North



# Building Legend:

	Circulation
	Studio 35sqm / 376sqft
	1 Bed Apartment 45sqm / 484sqft
	2 Bed Apartment 60sqm / 645sqft
	3 Bed Apartment 75sqm / 807sqft

NB: Single Core option permitted under proviso that distance from farthest door to reach stair door sub 30m.

To deliver extended distances a mechanical smoke ventilation solution would be required. This would entail a natural OAV of 1.5sqm and 2 extract shafts at the remote ends of the corridor as far from the stair as possible.

Subject to review by Fire Consultant.

Podium Level +3600mm above car park.

Brunswick Dock

## **BUILDING 1**

	No.	SQM
3 Bed Apartment	1	75 sqm
2 Bed Apartment	4	240 sqm
1 Bed Apartment	5	225 sqm
Studio Apartment	2	70 sqm
<b>Total Apartment Area</b>		<b>610 sqm</b>
<b>Total GIA Per Floor</b>		<b>777 sqm</b>
<b>Total GEA Per Floor</b>		<b>857 sqm</b>

## **BUILDING 2**

	No.	SQM
3 Bed Apartment	1	75 sqm
2 Bed Apartment	5	300 sqm
1 Bed Apartment	6	277 sqm
Studio Apartment	2	70 sqm
<b>Total Apartment Area</b>		<b>722 sqm</b>
<b>Total GIA Per Floor</b>		<b>920 sqm</b>
<b>Total GEA Per Floor</b>		<b>1007 sqm</b>

## **BUILDING 3**

	No.	SQM
3 Bed Apartment	1	75 sqm
2 Bed Apartment	4	240 sqm
1 Bed Apartment	2	90 sqm
Studio Apartment	3	113 sqm
<b>Total Apartment Area</b>		<b>518 sqm</b>
<b>Total GIA Per Floor</b>		<b>667 sqm</b>
<b>Total GEA Per Floor</b>		<b>738 sqm</b>

## **BUILDING 4**

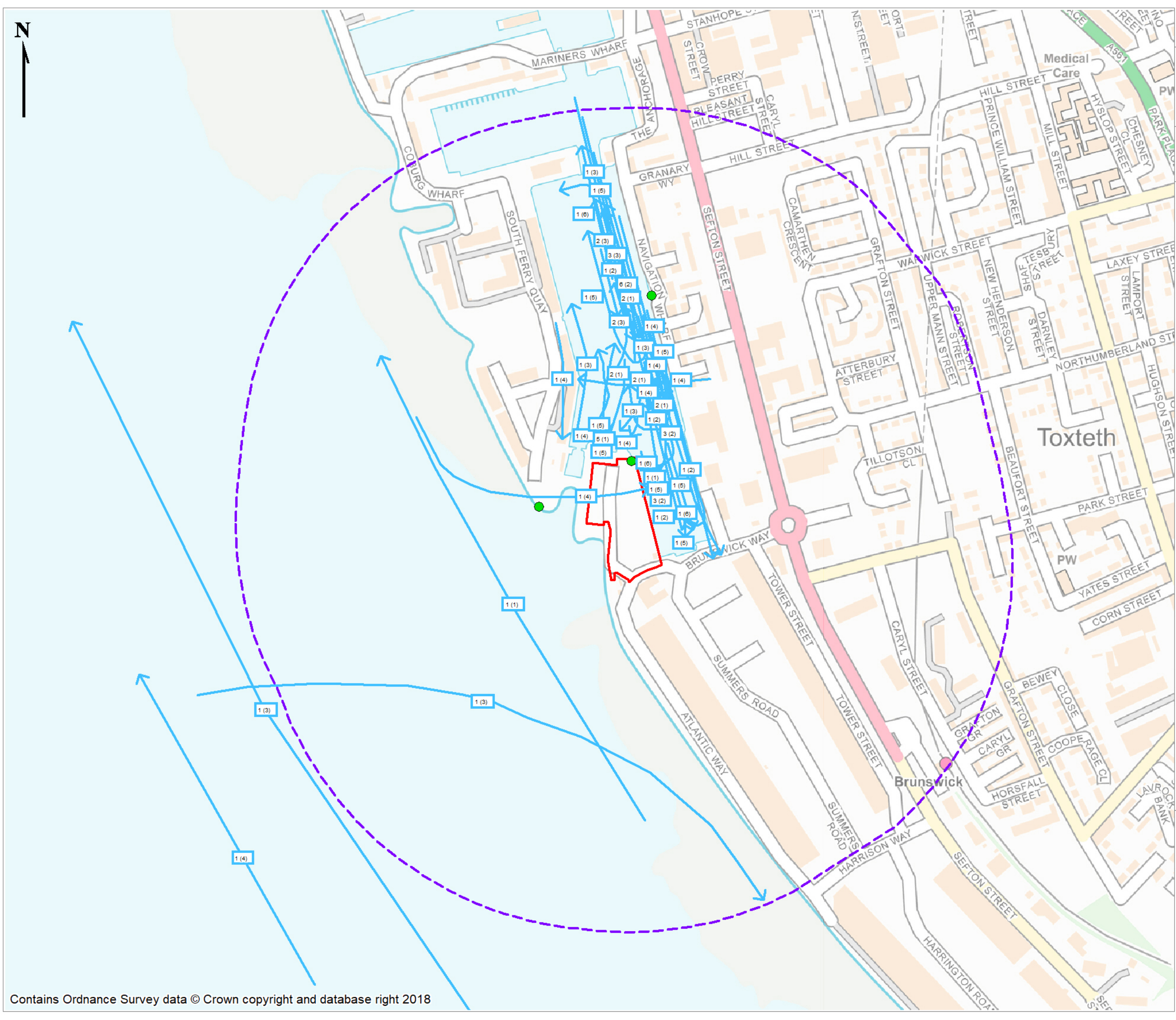
	No.	SQM
3 Bed Apartment	1	75 sqm
2 Bed Apartment	6	364 sqm
1 Bed Apartment	3	135 sqm
Studio Apartment	1	35 sqm
<b>Total Apartment Area</b>		<b>609 sqm</b>
<b>Total GIA Per Floor</b>		<b>778 sqm</b>
<b>Total GEA Per Floor</b>		<b>858 sqm</b>



## 1.1 The Site\_Aerial View facing North

**Drawing 3.1:**  
Bird Survey Results Summary Plan (1 of 2)








Land off Atlantic Way, Brunswick Dock, Liverpool


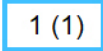
Drawing 3.1:  
Bird Survey Results  
Summary Plan (1 of 2)

Map Ref: (NGR) 334710, 388191  
Map Scale: 1:5000 @ A3

**Key**

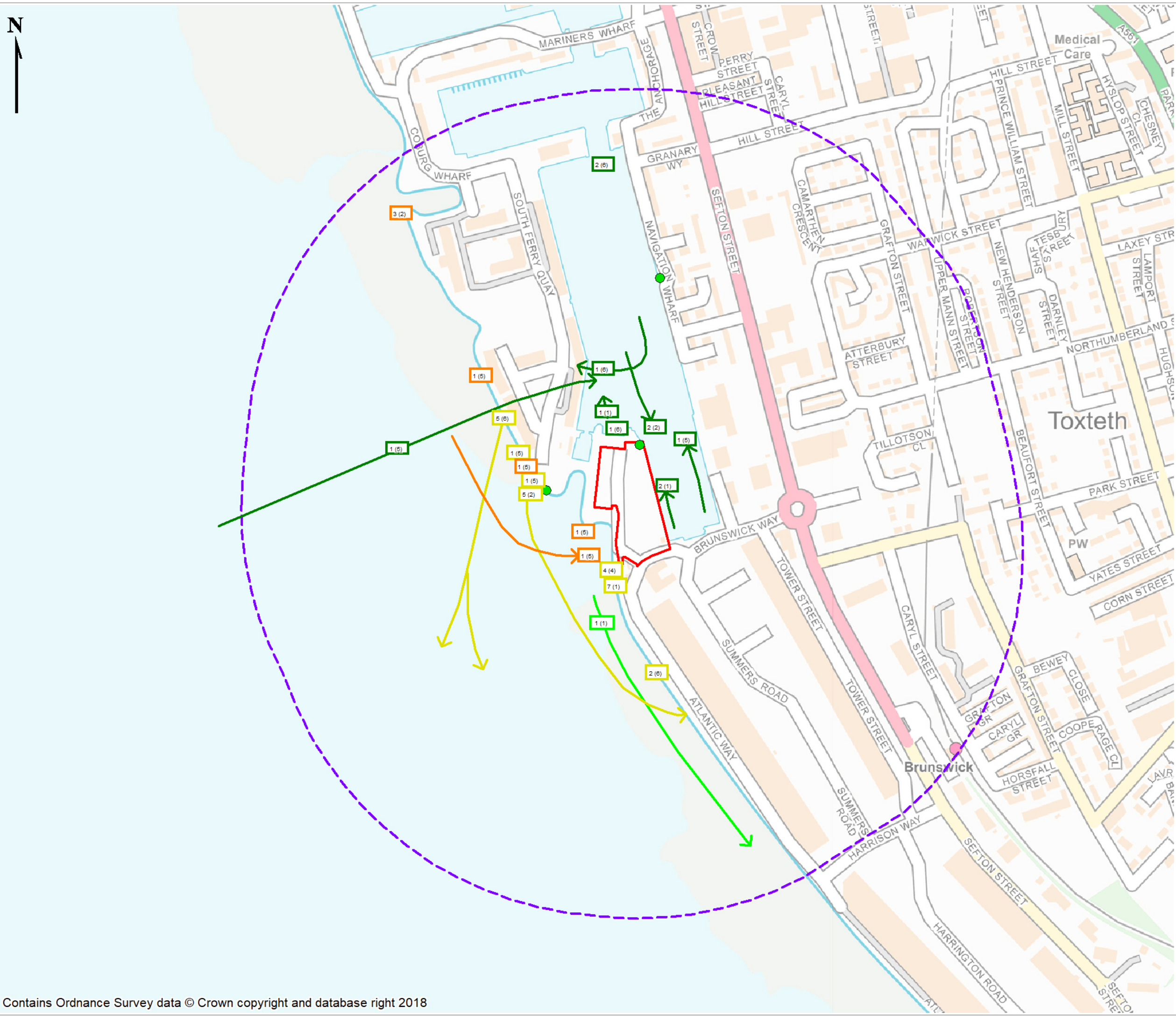
-  Site boundary
-  500m site boundary buffer
-  Vantage points

**BIRD ACTIVITY SUMMARY**

-  Cormorant - line of movement
-  Number of birds (survey visit no.)

**Drawing 3.2:**  
Bird Survey Results Summary Plan (2 of 2)





Land off Atlantic Way, Brunswick Dock, Liverpool

### Drawing 3.2: Bird Survey Results Summary Plan (2 of 2)

Map Ref: (NGR) 334710, 388191  
Map Scale: 1:5000 @ A3

**Key**

- Site boundary
- 500m site boundary buffer
- Vantage points

**BIRD SURVEY RESULTS**

- Mallard - line of movement
- Little gull - line of movement
- Turnstone - line of movement
- Redshank - line of movement
- Number of birds (survey visit no.)